

JAPANESE MEDICAL EQUIPMENT

LABORATORY, CHEMICAL, FIELD, FOR ARMY

262779

REPORT NO. 184

9 March 1946

ARMY
MEDICAL
MAY 22 1946
LIBRARY

MEDICAL ANALYSIS SECTION
5250th Technical Intelligence Company
APO 500

Reproduced by U S Army Technical Intelligence Center, Tokyo

9 March 1946

Laboratory, Chemical, Field, for Army

SOURCE: Headquarters, Japanese Medical Supply, Tokyo, Japan.

IMPORTANCE: Not previously reported. This set was experimental and never used as a unit. Only one set of the "co-operate" or "common-use" chests was made and four sets of the "poison" chests were made.

DESCRIPTION: This field laboratory consists of two groups of consequently numbered chests. The chests are constructed of 3/4" hard wood with metal reinforcements and are dark brown in color with white characters and numbers. Each chest has two heavy metal hinges, a metal hasp and a 1 3/4" leather shield around the cover. There are two heavy leather loop handles fastened to each chest by metal loops.

All the chests have a uniform length of 28" but the breadth and depth varies accordingly to the size of the contents. There are four metal teats on the four corners of the bottom of each chest which fit into corresponding depressions on the top of each chest of equal size to hold them securely when piled one on the other.

The inside of each chest is meticulously constructed by hand and the various compartments and boxes are constructed of hard, varnished wood with brass reinforcements.

The set is supposed to consist of 45 chest in the "Poison" group

418166

and approximately 50 chests in the other group which is divided approximately equally into 3 sections labeled "Sick", "Treatment" and "Co-operate" (common use) respectively. It was impossible to locate all the chests which comprise this unit as only one set was made. Also, to date, the original plans have not been found. However, a representative group of the chests was found and from these a fair estimation of the unit can be made.

An inventory of the contents of the chests which were obtained is included in this report along with representative photographs.

COMMENT: Lt. General Toraji Shimizu, director of the Japanese Medical Supply for the Home Islands of Japan and Colonel Takezo Suyenaga were interviewed regarding this field laboratory.

This unit was experimental and was made, for the most part, in the Army Chemical Laboratory, Okubo, Yodobashi-ku, Tokyo.

This field laboratory is composed of two main sections. One is called "Poison" or "Poisoning" and this section is supposed to consist of approximately 45 chests. This section was compiled by or in conjunction with the Chemical Warfare Section and was used in the field for anti-gas and anti-poison determinations. Some of these chests are labeled "The Third Chemical Laboratory in the Field". There was a total of four of these "Poison" sets made (called 1st, 2nd, 3rd and 4th Chemical Laboratories in the Field) in 1937 for the Sino-Japanese War and the chest obtained were made up from these groups.

Later, the Japanese felt that the "Poison" laboratory was inadequate and so a second section was added. These two sections could operate separately or together and were meant to serve an army in the field.

Only one of the second sections was made. This section was composed of three groups called "Sick", "Treatment" and "Co-operate" (or common use). These groups consisted of approximately 14 chests each and could be used independently or together as the situation demanded.

The group labeled "Sick" or "Sickness" was used for pathological study in the field. The group labeled "Treatment" was used for medical treatment and consisted largely of drugs. Those chests which are labeled "Co-operate" or "Common Use" consisted of equipment which could be used to supplement either of the other groups or the "Poison" section when needed.

Throughout the entire section the characters "for the Second Squad" are found. Those chests which are not so marked make up the "First Squad". The chests marked "for the Second Squad" were used exclusively by the Medical Corps. The other chests were for analysis and used by groups other than the Medical Corps.

Despite the fact that this set was never "souvenired", it was incomplete due to critical shortage of certain items at the time this set was composed.

This unit was felt to be of intelligence interest for several reasons. The unit was experimental and the Japanese felt from their experiences in China that a large field chemical laboratory was needed. Consequently, this unit was devised and incorporated the "Poison" chests in the new unit. After this unit was completed and used experimentally, it was decided that the unit was too large and at the termination of hostilities, the Japanese were Planning to design a

chemical field laboratory smaller than this unit but larger than the commonly used units.

This unit shows excellent workmanship and compactness. The instruments and equipment were of the best quality that the Japanese used.

Photographs: Fig. 1 - "Poison" section of unit.
Fig. 2 - "Sick, Treatment and Co-operative" section of unit.
Fig. 3 - Box Poisoning #1
Fig. 4 - Box Branch Poison #1
Fig. 5 - Box Poison #15 (for the second squad)
Fig. 6 - Box Poison #16 (for the second squad)
Fig. 7 - Box Poison #19 (for the second squad)
Fig. 8 - Box Poison #20 (for the second squad)
Fig. 9 - Box Poison #31
Fig. 10 - Box Poison #34
Fig. 11 - Box Poisoning #41
Fig. 12 - Box Poisoning #43
Fig. 13 - Box Co-operate #2 (for the second squad)
Fig. 14 - Box Co-operate #7 (for the second squad)
Fig. 15 - Box Co-operate #8 (for the second squad)
Fig. 16 - Box Co-operate #13 (for the second squad)
Fig. 17 - Box Sick #23 (for the second squad)
Fig. 18 - Box Sick #27 (for the second squad)
Fig. 19 - Box Treatment #32 (for the second squad)
Fig. 20 - Box Co-operate #40 (for the second squad)
Fig. 21 - Box Co-operate #41 (for the second squad)



Fig. 1 - "Poison" section of unit.



Fig. 2 - "Sick, Treatment and Co-operative" section of unit.



Fig. 3 - Box Poisoning #1



Fig. 4 - Box Branch Poison #1

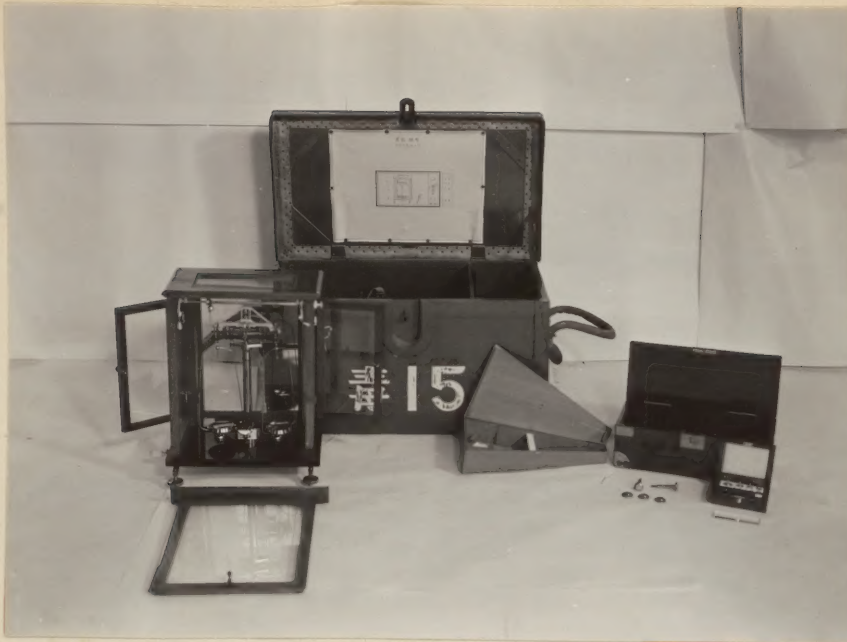


Fig. 5 - Box Poison #15 (for the second squad)



Fig. 6 - Box Poison #16 (for the second squad)



Fig. 7 - Box Poison #19 (for the second squad)



Fig. 8 - Box Poison #20 (for the second squad)



Fig. 9 - Box Poison #31

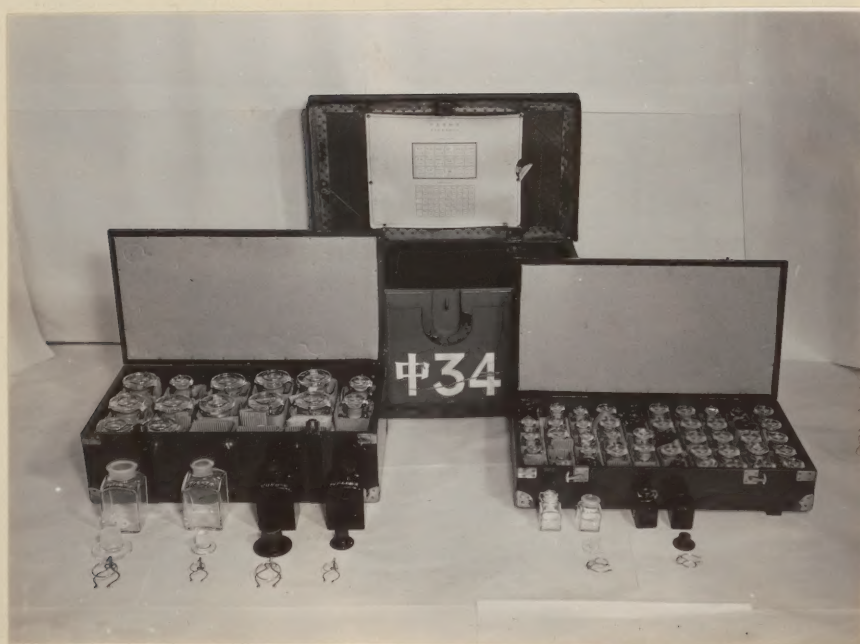


Fig. 10 - Box Poison #34



Fig. 11 - Box Poisoning #41



Fig. 12 - Box Poisoning #43



Fig. 13 - Box Co-operate #2 (for the second squad)



Fig. 14 - Box Co-operate #7 (for the second squad)



Fig. 15 - Box Co-operate #8 (for the second squad)



Fig. 16 - Box Co-operate #13 (for the second squad)



Fig. 17 - Box Sick #23 (for the second squad)



Fig. 18 - Box Sick #27 (for the second squad)



Fig. 19 - Box Treatment #32 (for the second squad)



Fig. 20 - Box Co-operate #40 (for the second squad)

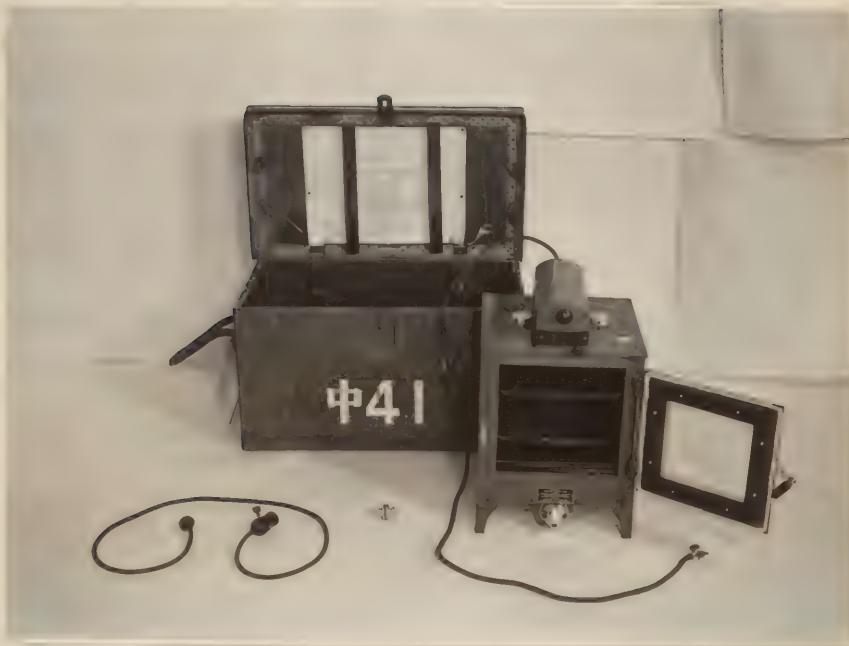


Fig. 21 - Box Co-operate #41 (for the second squad)

Equipment for the Chemical Laboratory in the Field

(for the experiments of poisoning)
Box Poisoning #1

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following:

1. Mortars	ea	4
2. Balance, for dissecting	set	1
3. Balance, laboratory, with upper scales	set	1
4. Balance, laboratory, with upper scales, small	set	1
5. Filter papers	sheet	20
6. Paraffin papers	sheet	10
7. "Target" filter paper	box	1
8. Broom, feather	ea	5
9. Holder	ea	5
10. Pen knife	ea	2
11. Pencil	ea	12
12. Labels	ea	100
13. Pencil, glass	ea	2
14. Glass cutter	ea	1
15. Cork screw	ea	1
16. Funnel stand	ea	2
17. Funnel	ea	15

Equipment for the Chemical Laboratory in the Field

(for anti-poison in the branch (section))
Branch Poison #1

This case is 28" x 16 1/4" x 16" and is incomplete. The following items are supposed to be contained in this chest:

1. Animal fixer	ea	1
2. Fodder container	ea	1
3. Cotton rubbish (waste)	gm	1000
4. Ballonet	set	1
5. Beaker, glass	set	6
6. Animal cage	ea	2
7. Ypenite (mustard gas)cure		
8. Depilatory		
9. High degree bleaching powder		
10. Alcohol		
11. Carbon tetrachloride		
12. Hair clippers	ea	3
13. Metal spoon	ea	2
14. Brush, for washing nails	ea	5

15.	Pipet (Marco type)	ea	3
16.	Syringe	ea	4
17.	Graduated test tube with cork	ea	4
18.	Small size dissecting instruments	set	2
19.	Alcohol furnace	ea	1
20.	Soap case	ea	1
21.	Bag for number tickets	ea	2
22.	Number tickets for animals #1	ea	100
23.	Syringe needle	ea	48
24.	Funnel	ea	2
25.	Adhesive plaster	roll	2
26.	Test paper (several types)	ea	50
27.	Filter paper	ea	100
28.	Matches	box	3
29.	Rubber gloves		
	a. white	pr	3
	b. thin	pr	3

Equipment for the Chemical Laboratory in the Field

(for the experiments of poisoning)
Box Poisoning #3

This chest is 28" x 16 1/4" x 15" and is supposed to contain the following:

1.	Balance, animal	ea	1
----	-----------------	----	---

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Poison #7

The contents of this chest are as follows:

1.	Appliance for assaying the gas	set	1
2.	Duplex balls	set	1
3.	Gas meter	set	1
4.	Bellows	set	1
5.	Tools for miscellaneous uses, incomplete	set	1
6.	Copper wire wound with cotton	gm	1000
7.	Wire, diameter 1 mm	gm	1000
8.	Wire, diameter 3 mm	gm	1000
9.	Whetstone	ea	2
10.	Nail bag	ea	5
11.	Screw nails	box	2
12.	Nails	gm	1000

Equipment for the Chemical Laboratory in the Field

(for experiment of poisoning)

Box Poison #10

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following:

1. Kettle, set	ea	1
2. Red colored solid rubber tube Outside diameter:		
a. 12 mm.	meter	5
b. 8 mm.	meter	5
c. 6 mm.	meter	5
d. 5 mm.	meter	5
e. 4 mm.	meter	5
3. Brown colored soft rubber tube Outside diameter:		
a. 12 mm.	meter	5
b. 9 mm.	meter	5
c. 7 mm.	meter	5
d. 6 mm.	meter	5
4. Cork boards	ea	3
5. Corks		
a. rubber	ea	12
b. wooden	ea	12
6. Evaporating dishes		
a. 210 mm.	ea	2
b. 120 mm.	ea	3
c. 60 mm.	ea	3
7. Gloves, rubber		
a. white	ea	12
b. red	ea	12

This chest is identical with co-operative #10 for the second squad.

Equipment for Chemical Laboratory in the Field

(for second squad)

Poison #15

This chest is 16 1/4" x 28" x 15". The contents are as follows:

1. Chemical balance (analytical), complete, 13" x 8 1/4" x 16"	set	1
2. Accessories (missing)		
a. Platinum wire	cm	100
b. Platinum crucible	ea	1

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Chest Poison #16

This chest is 28" x 16 1/2" x 15" and is incomplete. The contents are supposed to be as follows:

1. Blood viscosimeter	ea	1
2. Gauge for measuring the density of the hydrogen ion (Potentiometer, portable, precision #609)	ea	1
3. Accessories of the gauge for measuring the density of the hydrogen ion	ea	1
4. Torsion balance	ea	1
5. Sphygmomanometer, for humans	ea	1
6. Crucibles	ea	5
7. Watch glass	ea	20
8. Thermometers, for small animals	ea	10
9. Watch glass holders	ea	5
10. Loupe	ea	1
11. Rolled measuring tape	ea	1
12. Abacus	ea	1
13. Counter	ea	1
14. Ophthalmoscope	ea	1
15. Slide rule	ea	1
16. Urethra catheter	set	1

Equipment for the Chemical Laboratory in the Field

(for the experiments of poisoning)
Poison Box #17

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following:

1. Gas analyser	set	1
2. Gas meter	set	1
3. Bellows	set	1
4. Tools for miscellaneous use	set	1
5. Asbestine board	ea	10

Equipment for the Chemical Laboratory in the Field

(for second squad)
Box Poison #18

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following:

1. Apparatus for examining the breathing of small animals	set	1
2. Gauge for expiratory quantity	set	1
3. Rubber tubes	ea	3
4. Bottles for collecting the expiration	ea	2
5. Masks for rabbits	ea	2
6. Masks for beaver	ea	2
7. Masks for pigeons	ea	2
8. Three forked cocks (stopcocks)	ea	2
9. Three forked tubes	ea	2
10. Cocks (stopcocks) for collecting	ea	2
11. Expiratory valves	ea	2
12. Expiratory valve stand	ea	2
13. Three forked cock stands	ea	2
14. Fixer	set	1
15. Machine cotton rolls	ea	2
16. Microburette	ea	24
17. Stand bases	ea	4
18. Microburette stand	ea	2
19. Burette washer	ea	5
20. Burette	ea	4

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Box Poison #19

This chest is 28" x 16 1/4" x 15" and is supposed to contain the following:

1. Pump, vacuum	set	1
2. Cord	meter	30
3. Plugs	ea	10
4. Sockets	ea	10
5. Forked sockets	ea	5
6. Electric stands	ea	3
7. Container, oil	ea	1
8. Oil can	ea	1
9. Wire, electric, covered	meter	30

Equipment for the Chemical Laboratory in the Field

(for second squad)
Box Poison #20

This chest is 28" x 26 1/4" x 15" and contains the following:

1. Kymograph	ea	1
--------------	----	---

Equipment for the Chemical Laboratory in the Field

(for the experiments of poisoning)

Poison Box #20

- | | | |
|--------------|----|---|
| 1. Kymograph | ea | 1 |
|--------------|----|---|

Equipment for the Chemical Laboratory in the Field

(for second squad)

Box Poison #21

This chest is 28" x 16 1/4" x 15" and is supposed to contain the following:

- | | | |
|---------------------------------|-----|---|
| 1. Benzin Lamp | set | 1 |
| 2. Barometer | ea | 1 |
| 3. Contacter | ea | 1 |
| 4. Accessories of Kymograph | | |
| a. Manometer recorder | | |
| b. Drawing roller | | |
| c. Coupling link | | |
| d. Rubber tube | | |
| e. Magnet, double pole | | |
| f. Magnet, single pole | | |
| g. Mercury manometer | | |
| 5. Holder, drawing | | |
| 6. Paper holder | | |
| 7. String, silk, wound (suture) | | |
| 8. Rubber, thin | | |
| 9. Drawing needle | | |

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Poison #22

This chest is 28" x 16 1/4" x 15 1/4" and contains seven smaller boxes. The contents are:

- | | | |
|---|-----|---|
| 1. Appliance for assaying the gas in the blood
(Van Slyke apparatus) | set | 1 |
| 2. Colorimeter (standard type) | ea | 1 |
| 3. Colorimeter (electric type) | ea | 1 |
| 4. Gauge for measuring the velocity of blood
sedimentation | ea | 1 |
| 5. Standard Hydrometer (missing) | ea | 1 |
| 6. Maximum-minimum thermometer | ea | 1 |
| 7. Razor box | ea | 1 |
| 8. Hydrometer | ea | 1 |
| 9. Funnels for dividing the liquids | ea | 2 |
| 10. Bottles for purifying gas | ea | 2 |

Equipment for the Chemical Laboratory in the Field

(for experiments of poisoning)

Box Poisoning #24

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1. Leather strops	ea	2
2. Table, leather strop	ea	1
3. Irrigator	set	1
4. Dissecting instruments, animal	kit	1
5. Chart for listing the results of tissue examination	sheet	100
6. Chart for listing the detail of dissection		
a. type A	sheet	100
b. type B	sheet	100
7. Microscopic slides	box	24
8. Cover glass	ea	1000

Equipment for the Chemical Laboratory in the Field

Box Poisoning #30

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1. Camera	ea	1
2. Dry plates	ea	24
3. Printing boards	ea	2
4. Microtome, freezing	set	1
5. Container, water		
a. large	ea	1
b. small	ea	1
6. Developing equipment	ea	2
7. Printing papers	dozen	10
8. Dark slides	ea	3
9. Hanging stand	ea	1
10. Vats	ea	4
11. Dark room, canvas, portable	set	1
12. Cloth	ea	2
13. Tripod	ea	1

Equipment for the Chemical Laboratory in the Field

(for experiments of poisoning)

Poison #31

This chest is 28" x 16 1/4" x 15 1/4" and is incomplete. It is supposed to contain the following:

1. Blood transfuser set	ea	1
2. Surgical bag	set	1
3. Gauze sterilizer	set	1
4. Accessories of gauze sterilizer	box	1

5. Ointment pots	ea	14
6. Ointment board	ea	1
7. Ointment spatula	ea	1
8. Preparer box	set	1
9. Micro-pipets 1 mm.	ea	12
10. Silk thread	rolls	30

Equipment for the Chemical Laboratory in the Field

Box Poisoning #32

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1. Dissecting instruments, veterinary	set	1
2. Nose wrench	ea	3
3. Plexor (percussion hammer)	ea	1
4. Stethoscope	ea	1
5. Test tubes, graduated	ea	20
6. Gauge for blood pressure, horse, portable	ea	1
7. Veterinary bag, portable	ea	1
8. Flat braid		
a. large	ea	1
b. small	ea	1
9. Robe, hemp	roll	1

Equipment for the Chemical Laboratory in the Field

(for experiments of poisoning)

Box Poisoning #33

This chest is 28" x 16 1/4" x 15" and contains bottles for the following drugs:

1. Sodium Carbonate (crude)	grams	500
2. Sodium Carbonate (anhydrous)	grams	500
3. Potassium Carbonate	grams	250
4. Camphor	grams	500
5. Talc	grams	500
6. Sodium Carbonate	grams	500
7. Potassium hydroxide	grams	500
8. Sodium hydroxide	grams	500
9. Hydrogen peroxide, solution	grams	500
10. Sodium thiosulphate	grams	500
11. Barium sulphide	grams	500
12. Copper sulphate (anhydrous)	grams	500
13. Bomic acid	grams	500
14. Sodium bicarbonate	grams	1000
15. Potassium iodide	grams	150
16. Potassium iodate	grams	50
17. Iodic acid	grams	25

18.	Caffeine	grams	100
19.	Tincture of iodine	grams	50
20.	Iodine	grams	50
21.	Ferric chloride	grams	50
22.	Starch, soluble	grams	50
23.	Calmin	grams	25
24.	Canadian balsam	grams	100
25.	Liquid paraffin	grams	100
26.	Sodium sulphate (pure)	grams	50
27.	Copper sulphate	grams	50
28.	Phosphuric acid	grams	50
29.	Atropine sulphate	grams	100
30.	Potassium ferrocyanicle	grams	50
31.	Ferric chloride	grams	100
32.	Lignum ceder oil	grams	25
33.	Magnesium sulphate	grams	150
34.	Sulfosalicylic acid	grams	50
35.	Trichloracetic acid	grams	100
36.	Bismuth subnitrite	grams	25
37.	Potassium Bichromate	grams	100
38.	Hematexylin	grams	25
39.	Hexeton	grams	100
40.	Animal carbon	grams	100
41.	Hydrochinon	grams	50
42.	Borax	grams	150
43.	Kalium rhodanatum	grams	50
44.	Ammonium rhodanatum	grams	50
45.	Halonin	grams	100
46.	Hydrochinon	grams	50

Equipment for the Chemical Laboratory in the Field

(for the experiment of poisoning)
Poison Box #34

This chest is 28" x 16 1/4" x 15 1/4". The chest contains only the bottles for the following drugs:

500 Gram Bottles

1.	Salt	grams	500
2.	Oxalic acid	grams	500
3.	Pyrogallol	grams	250
4.	Acetic acid	grams	250
5.	Bleaching powder	grams	1000
6.	Zinc Flower	grams	500
7.	Sodium sulphite	grams	500

8.	Sodium salicylate	grams	500
9.	Glucose	grams	500
10.	Calcium chloride (crude)	grams	500
11.	Ammonium water	grams	500
12.	Medical carbon	grams	500
13.	Magnesium	grams	500
14.	Cresol soap solution	grams	250
15.	Glycerin	grams	250
16.	Creosote	grams	250

50 Gram Bottles

1.	Sudan III	grams	10
2.	Mercury	grams	2500
3.	Balium Hydroxide	grams	100
4.	Carbolic acid (crystalized)	grams	150
5.	Metal	grams	25
6.	Methylene Blue	grams	10
7.	Potassium cyanide	grams	25
8.	Corrosive Sublimate	grams	50
9.	Silver nitrate	grams	50
10.	Aniline	grams	100
11.	Trichloroacetate	grams	50
12.	Uranium acetate	grams	50
13.	Lead acetate	grams	50
14.	Fuchsin S:	grams	25
15.	Potassium chloride	grams	100
16.	Calcium chloride (pure)	grams	100
17.	Congo red	grams	10
18.	Collodium	grams	25
19.	Eosin	grams	25
20.	Ammonium chloride	grams	25
21.	Balium chloride	grams	50
22.	Gentian-violet (concentrated)	grams	25
23.	Fuchsin	grams	25
24.	Phenolphthalein	grams	25
25.	Potassium Bromate	grams	50
26.	Potassium bromide	grams	50
27.	Tannic acid	grams	50
28.	Lithium carbonate	grams	100
29.	Sodium carbonate	grams	100

Equipment for the Chemical Laboratory in the Field

(for experiment of poisoning)

Box Poison #36

This chest is 28" x 16 1/4" x 15" and contains bottles for the following drugs:

1.	Petroleum benzine	grams	1000
2.	Petroleum ether	grams	250

3.	Methanol	grams	500
4.	Carbon tetrachloride	grams	500
5.	Petroleum	grams	500
6.	Alcohol (pure)	grams	2000
7.	Xylol	grams	500
8.	Acetone	grams	500
9.	Formaline	grams	500
10.	Benzol	grams	500
11.	Toluol	grams	500

Equipment for the Chemical Laboratory in the Field

(for the experiments of poisoning)

Box poisoning #41

This chest is 28" x 16 1/4" x 15" and contains the following:

- | | | | |
|----|------------------------------------|----|---|
| 1. | Drying machine, electric, complete | ea | 1 |
|----|------------------------------------|----|---|

Equipment for the Chemical Laboratory in the Field

The Care for Experimenting in Poisoning #42

This chest is 20" x 28" x 27" and contains one complete distillatory apparatus and a liquid fuel heater with two burners.

This chest and chest Co-operate #41 (for the second squad) are identical.

Equipment for the Chemical Laboratory in the Field

(for the experiments of poisoning)

Box Poisoning #43

This chest is 28" x 20" x 16" and is identical with Box Co-operate #43. It contains the following items:

- | | | | |
|----|---------------------------------|----|---|
| 1. | Centrifugal sinker (centrifuge) | ea | 1 |
| 2. | Signal clock | ea | 1 |

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Co-operate #1

This chest is 28" x 16 1/4" x 15" and is incomplete. The following items are supposed to be in this chest:

1. Mortars	ea	1
2. Balance-Harvard beam (for dissection)	set	1
3. Balance, analytical (with upper plates) medium size	set	1
4. Electric bulbs:		
a. 60 watt	ea	5
b. 100 watt	ea	5
5. Protecline spectacles	ea	5
6. Pocket electric lamps	ea	3
7. Balance, analytical (with upper plates) small	ea	1
8. Funnel stands	sets	2
9. Funnels (including bags)	ea	15
10. Filter paper mark	set	1
11. Cork screw	ea	1
12. Glass cutter	ea	1
13. Tweezers	ea	5
14. Knives	ea	2
15. Colored pencils	ea	6
16. Feather brooms	ea	3
17. Nibs (pen points)	boxes	2
18. Pen holders	ea	6
19. Drawing pens	box	1
20. Glass pencil	ea	2
21. Clips	box	1
22. Pencils	dozen	1
23. Steel pen	ea	3
24. Hair pencils		
a. big	ea	6
b. small	ea	6

Equipment for the Chemical Laboratory in the Field

(for second squad)

Box Co-operate #2

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following:

1. Basin, hand washing	ea	1
2. Buckets	ea	2
3. Bucket, canvas	ea	1
4. Soap cases	ea	2
5. Soaps	ea	10
6. Screen	ea	5
7. Brushes skin washing	ea	4
8. Holder, stand	ea	1
9. Copper net (mesh)	ea	10
10. Tripod	ea	1
11. Triangular bridges	ea	5

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Co-operate #3

This chest is 28" x 16 1/4" x 15" and contains one complete Harvard Beam Balance used to weigh small animals.

Equipment for the Chemical Laboratory in the Field

(for second squad)

Box Co-operate #4

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following:

1. Fixer (holder), animal
 - a. Type A & B sets 6
 - b. For two animals set 1
 - c. For beaver set 1
 - d. For pigeon set 1
2. Number tickets
 - a. For rabbit ea 500
 - b. For pigeon ea 500

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Box Co-operate #5

This chest is 28" x 16 1/4" x 15" and is supposed to contain the following items:

1. Animal cages large ea 3

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Box Co-operate #6

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1. Cages, animal
 - a. Medium size ea 3
 - b. Small size ea 6

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Co-operate #7

This chest is 28" x 16 1/4" x 15" and contains three stained boxes with brass clamps and hinges:

The contents are:

1. Beakers, glass (each set consists of 8 pieces)	sets	15
2. Erlenmeyer Flasks		
a. without stopper, 200 cc.	ea	4
b. with stopper, 250 cc.	ea	3
3. Flasks		
a. 300 cc.	ea	3
b. 500 cc.	ea	2

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Box Co-operate #8

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following:

1. Desiccator	ea	2
2. Beakers, graduated		
a. 500 cc.	ea	1
b. 100 cc.	ea	3
3. Syringes:		
a. 50 cc.	ea	1
b. 20 cc.	ea	4
c. 10 cc.	ea	6
d. 5 cc.	ea	10
e. 2 cc.	ea	12
f. 1 cc.	ea	12
4. Needles for syringes		
1. 1/2 circle	ea	12
2. 1/3 circle	ea	12
3. 1/5 circle	ea	12
4. 3/4 circle	ea	12
5. 5 mm size	ea	12
6. 10 mm size	ea	12

5. Flasks, graduated		
a. 250 cc.	ea	2
b. 100 cc.	ea	2
6. Weighing glass, graduated, with stopper, 100 cc	ea	2

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Co-operate #9

This chest is 28" x 16 1/4" x 15" and is incomplete, It is
supposed to contain the following:

1. Cotton	pkgs	5
2. Rolled bandages	pkgs	10
3. Gauze	pkgs	50
4. Absorbent cotton	pkgs	40

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Co-operate #10

This chest is 28" x 16 1/2" x 15" and is incomplete. The contents
are supposed to be as follows:

1. Red colored solid rubber tube.

Outside diameter

a. 12 mm	meter	5
b. 8 mm	meter	5
c. 6 mm	meter	5
d. 5 mm	meter	5
e. 4 mm	meter	5

2. Brown colored soft rubber tube

Outside diameter

a. 12 mm	meter	5
b. 9 mm	meter	5
c. 7 mm	meter	5
d. 6 mm	meter	5

3. Black colored soft rubber tube

Outside diameter 9 mm and inside diameter 5 mm.

meters	5
set	1

4. Kettle

5. Cork boards	ea	3
6. Corks:		
a. Rubber	ea	12
b. Wooden	ea	12
7. Evaporating dishes		
a. 210 mm	ea	2
b. 120 mm	ea	3
c. 60 mm	ea	3
8. Rubber gloves		
a. white	ea	12
b. red	ea	12

This chest is identical with Poison #10

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Box Co-operate #11

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1. Alcohol lamps	ea	3
2. Dropping bottles	ea	8
3. Washing bottles	ea	2
4. Pipettes:		
a. 5 cc.	ea	2
b. 10 cc.	ea	2
c. 1 cc.	ea	2
5. Pipettes, graduated:		
a. 1 cc.	ea	2
b. 5 cc.	ea	2
c. 10 cc.	ea	2
6. Thermometers		
a. 70° C	ea	2
b. 100° C	ea	2
c. 300° C	ea	2
7. Rods, glass	ea	4
8. Pipe, glass	ea	16
9. Tip pipettes	ea	3
10. Test tubes		
a. outside diameter, 20 mm	ea	24
b. outside diameter, 18 mm	ea	24
11. Test paper-every kind		
12. Test tube stands	ea	6
13. Test tube washers	ea	10

Equipment for the Chemical Laboratory in the Field

(for second squad)

Box Co-operate #12

This chest is 28" x 16 1/4" x 15" and contains the following bottles:

1.	250 mililiters:		
	a. Wide mouth		
	1. Colorless	ea	3
	2. Brown	ea	3
	b. Narrow mouth		
	1. Colorless	ea	3
	2. Brown	ea	3
2.	500 mililiters		
	a. Wide mouth		
	1. Colorless	ea	2
	2. Brown	ea	2
	b. Narrow mouth		
	1. Colorless	ea	2
	2. Brown	ea	2
3.	100 mililiters		
	a. Wide mouth		
	1. Colorless	ea	5
	2. Brown	ea	5
	b. Narrow mouth		
	1. Colorless	ea	4
	2. Brown	ea	5
4.	50 mililiters		
	a. Wide mouth		
	1. Colorless	ea	9
	2. Brown	ea	9
	b. Narrow mouth		
	1. Colorless	ea	9
	2. Brown	ea	9

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Box Co-operate #13

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1.	Drier, water bath	sets	2
2.	Gauges, coloring matter of the blood (Hemometer)	ea	2
3.	Gauges, blood corpuscle (hemocyclometer)	ea	3
4.	Second (stop watch	ea	2
5.	Gloves:		
	a. knitted	pr	24
	b. cotton	pr	10
6.	Cotton, rolls	ea	3
7.	Forceps		
	a. Medicine giving	ea	3
	b. Large, plain, gauze	ea	5
	c. Medium, plain, gauze	ea	5
	d. Small, plain, gauze	ea	7
	e. Tissue	ea	5

8. Syringes, medicine giving	ea	3
9. Capsule stand	ea	2
10. Hair shears	ea	5
11. Cork borer	set	1
12. Scissors, miscellaneous use	ea	2

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Box Co-operate #14

This chest is 28" x 16 1/4" x 15" and is supposed to contain the following:

1. Book for reference	ea	5
2. Explanation copy	ea	1
3. Registering papers:		
a. For second squad	booklet	5
b. Chart for listing the result of the dissection of test animal	booklet	1
c. Chart for listing the result of examination	booklet	5
d. Chits	booklet	5
e. Inventory of body diet of poisoning	ea	100

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Sick #23

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following:

1. Celloidin	bottles	5
2. Balsam	bottles	2
3. Immersion oil	bottles	2
4. Paraffin filter	set	1
5. Box for dyeing the specimens	ea	10
6. Inkpad glass case	ea	7
7. Western razors	ea	2
8. Cornet forceps	ea	5
9. Hemp thread	roll	1
10. Rubber caps	ea	10
11. Cap pins	ea	50
12. Machine thread	ea	10

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Sick #24

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following:

1.	Leather strops		
	a. Large	ea	1
	b. Small	ea	1
2.	Stand for leather strop	ea	1
3.	Carved seal	ea	1
4.	Soldering iron	ea	1
5.	Douching instrument	set	1
6.	Chart for listing the result of the examination of organism	ea	100
7.	Chart for stamping the carved seal		
	a. Type A	ea	100
	b. Type B	ea	100
8.	Oil for leather strop	ea	20
9.	Microscopic slides	ea	100
10.	Plate lids	ea	1000
11.	Dissecting instruments for small animals	set	1

Equipment for the Chemical Laboratory in the Field

(for second squad)

Sick #25

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1.	Cases for microscopic slides	ea	8
2.	Dissecting instruments, human	set	1
3.	(See MTR #155)		
3.	Operating gown	ea	2
4.	Chest protectors, rubber	ea	2
5.	Rubber cloth	ea	1

Equipment for the Chemical Laboratory in the Field

(for second squad)

Box Sick #26

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1. Microscopic camera	set	1
2. Arc light	set	1
3. Resistor	set	1
4. Stick carbon	ea	6
5. Dark slides		
6. Boards, printing	ea	2
7. Dry plates	ea	36
8. Printing paper	ea	36
9. Cord, electric	set	1

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Sick #27

This chest is 28" x 16 1/4" x 16" and contains an incubator complete with accessories.

Equipment for the Chemical Laboratory in the Field

(for second squad)
Box Sick #28

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1. Crofan (cellophane) paper	ea	50
2. Microscope medium	ea	1
3. Bail sterilizer	ea	2
4. Small bottles	ea	144
5. Name tickets wooden		
a. small	ea	120
b. medium	ea	120
c. large	ea	120
6. Wooden chips		
a. large	ea	10
b. medium	ea	10
c. small	ea	10
7. Sample tickets (wooden)	ea	50
8. Sample boxes	ea	2

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Sick #29

This chest is 28" x 16 1/4" x 15" and is incomplete. The following items are supposed to be in this chest:

1. Microtame knife	box	1
2. Microtame (large)	set	1
3. Microtame oil	cc	100
4. Accessories for camera	set	1
5. Portable dark room	ea	1
6. Album for preserving negative films	ea	4
7. Film clips	boxes	2
8. Printing paper		
9. Eastman corpuscular developer		
10. Acid fixative		
11. Tank (35 mm) for developing in the daytime	ea	1
12. Duplicating apparatus-large size	ea	1

Equipment for the Chemical Laboratory in the Field

(for second squad)
Box Sick #30

This chest is 28" x 16 1/4" x 15" and is incomplete. It is supposed to contain the following items:

1. Enlarger for wet negative film	set	1
2. "King" examiner for the temperature of solution	set	1
3. Enlarger, big size	ea	1
4. Dark room lamp	ea	1
5. Freezing microtame	set	1
6. Vots (4 ea)	set	1
7. Water containers (4 ea)	set	1
8. Dried plates	ea	36
9. Films	boxes	4
10. Ruler for cutting the films	ea	1
11. Tripod, flat type	ea	1
12. Camera	ea	1
13. Bag with adapter	ea	1
14. Bag with accessories	ea	1
15. Bag with lens	ea	1

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Box treatment #31

This chest is 28" x 16 1/4" x 15" and is supposed to contain the following items:

1.	Blood transfusor set	ea	1
2.	Surgical set	ea	1
3.	Gauze sterilizer	ea	1
4.	Accessory of gauze sterilizer	ea	1
5.	Ointment pots	ea	14
6.	Ointment board	ea	2
7.	Spatula	ea	2
8.	Dissecting kit	ea	1
9.	Marcopet (1 cc)	ea	12
10.	Silk thread	rolls	30
11.	Sewing needles (large, medium & small)	ea	12
12.	Mouth cover	ea	12
13.	Powder wrapping paper	ea	300
14.	Labels	ea	300
15.	Cotton needles	ea	20

Equipment for the Chemical Laboratory in the Field

(for second squad)
Box treatment #32

This chest is 28" x 16 1/4" x 15" and contains bottles only for the following drugs:

1. Sodium carbonate (anhydrous)
2. Copper sulphate (anhydrous)
3. Sodium sulphate (anhydrous)
4. Potassium carbonate
5. Sodium carbonate
6. Sodium carbonate (crude)
7. Active carbon
8. Camphor
9. Talc
10. Potassium hydroxide
11. Sodium hydroxide
12. Solution of Hydrogen peroxide
13. Olive oil (ea 2)
14. Vaseline
15. Sodium bicarbonate (ea 2)
16. Barium sulphide
17. Boric acid
18. Sodium thiosulphate
19. Lignum (wood) cedar liquid for tissue
20. Potassium chromate
21. Alum
22. Citric acid
23. Sodium citrate
24. Lithium carbonate (ea 2)
25. Sodium tungstite
26. Tannic acid
27. Resorcin
28. Albumin (white of egg)

29. Potassium iodide (ea 2)
30. Potassium iodite
31. Iodic acid
32. Mercury iodide
33. Tincture of iodine
34. Sodium perbromate
35. Carmine
36. Canadian balsam
37. Caffein
38. Soluble starch
39. Iodine
40. Potassium phosphate
41. Sodium phosphate
42. Sodium phosphomolybdate
43. Granular zinc (ea 2)
44. Potassium ferrocyanide
45. Atropine sulphate (ea 2)
46. Sulfosalicylic acid
47. Liquid paraffin (ea 2)
48. Phosphonic acid
49. Sodium bisulphite
50. Copper sulphate
51. Zinc sulphate
52. Magnesium sulphate (ea 2)
53. Ammonium sulphate
54. Bismuth subnitrate
55. Potassium bichromate (ea 2)
56. Potassium biphosphate
57. Sodium biphosphate
58. Potassium bisulphite
59. Sodium sulphate (pure)
60. Hematoxylin
61. Hexeton
62. Trichloroacetic acid
63. Lignum (wood) cedar oil (for microscope)
64. Lactose (ea 2)
65. Silver lactate
66. Borax (ea 2)
67. Chloral hydrate
68. Ammonium ichthyol sulfonic acid
69. Potassium rhodanate
70. Ammonium rhodanate
71. Halomin
72. Hydrochinon (ea 2)

Equipment for the Chemical Laboratory in the Field

(for second squad)
Box treatment #33

This chest is 28" x 16 1/4" x 15" and contains only bottles for the following drugs:

1. Castor oil
2. Pyrogallol
3. Salt
4. Oxalic acid
5. Fcyacetic acid
6. Salicylic acid
7. Acetic acid
8. Bleaching powder
9. Zinc oxide
10. Sodium sulphide
11. Linseed oil
12. Calcium chloride (crude)
13. Turpentine oil
14. Water of ammonium
15. Glycerin
16. Dried calcium sulphate
17. Glucose
18. Soda lime
19. Cresol soap solution
20. Cresote
21. Barium hydroxide
22. Sudan III
23. Carbollic acid (crystal) (ea 2)
24. Mercury (ea 5)
25. Potassium cyanide
26. Pilo corpine
27. Ammonium molybilate
28. Morphine
29. Potassium ferricyanide
30. Quick lime
31. Tantanic acid
32. Potassium and sodium tantrate
33. Potassium oxalate (ea 2)
34. Corrosive sublimate
35. Methyl violet
36. Methyl orange
37. Potassium nitrate
38. Sodium nitrate
39. Ammonium nitrate
40. Silver nitrate
41. Uranium acetate
42. Lead acetate
- 43.. Quinhydrone
44. Alum
45. Metol
46. Methylene blue
47. Ferric alum
48. Sodium nitrite
49. Salenium oxide
50. Lithium oxide
51. Fuchsin S
52. Potassium acetate
53. Barium chloride
54. Ammonium chloride
55. Mercury chloride
56. Ferric chloride (ea 2)
57. Eosin

58. Iodine pentaoxide
59. Potassium chloride (ea 2)
60. Calcium chloride (pure) (ea 2)
61. Cadmium chloride
62. Phenolphthalein
63. Potassium bromide (ea 2)
64. Potassium bromate
65. Congo red
66. Collodian
67. Medical carbon (ea 2)
68. Sodium Salicylate
69. Sodium & Potassium salicylate
70. Gentian violet (original solution)
71. Fuchsin

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Box treatment #34

This chest is 28" x 16 1/4" x 15" and contains bottles for the following items:

- | | | |
|--------------------------------------|-------|------|
| 1. Potassium permanganate | | |
| 2. High degree bleaching powder | | |
| 3. Sodium peroxide | | |
| 4. Picric acid | | |
| 5. Potassium chlorate | | |
| 6. Paraffin | grams | 1500 |
| 7. Boric acid ointment | grams | 500 |
| 8. Ceroidin | grams | 200 |
| 9. Varnish | grams | 250 |
| 10. Simple ointment | grams | 500 |
| 11. Lanolin | grams | 500 |
| 12. Magnesia | grams | 500 |
| 13. Sealing wax | grams | 250 |
| 14. Adhesive plaster, rubber | rolls | 5 |
| 15. Zinc ointment | grams | 500 |
| 16. Zinc oxide ointment | grams | 500 |
| 17. Asbestos, (purified cotton-like) | grams | 200 |
| 18. Gelatine | grams | 100 |
| 19. Boards, asbestos | ea | 5 |
| 20. Sulphuric acid | | |
| 21. Sulphuric acid (pure) | | |
| 22. Nitric acid | | |
| 23. Nitric acid (pure) | | |
| 24. Chloric acid | | |
| 25. Chloric acid (pure) | | |
| 26. Dore's powder | | |
| 27. Stomachic tablets | | |
| 28. Asperin tablets | | |
| 29. Atropin tablets | | |

30.	Corrosive sublimate tablets		
31.	Pyramidan tablets		
32.	Capsules	boxes	3
33.	Vitacamphor		
34.	Morphine		
35.	Pellidol ointment (diacetylaimdoazotoluene)		
36.	Diactose		
37.	Osmic acid		
38.	Cocaine chlorate		
39.	Decitin ointment		
40.	Adrenalin		
41.	Pavinal		
42.	Digitamin		
43.	Camphor		
44.	Novocain solution		
45.	Coramin		
46.	Caffeine sodium benzoate solution		
47.	"Atmulin"		

Equipment for the Chemical Laboratory in the Field

(for second squad)

Box treatment #35

This chest is 28" x 16 1/4" x 16" and contains bottles or boxes for the following:

1.	Petroleum benzin	ea	2
2.	Petroleum ether		
3.	Methanol		
4.	Carbon tetrachloride		
5.	Petroleum		
6.	Alcohol (pure)	ea	2
7.	Xylol		
8.	Analin		
9.	Alcohol	ea	2
10.	Ether (pure)	ea	2
11.	Acetone		
12.	Benzol		
13.	Toluol		
14.	Chloroform		
15.	Carbon disulphide		
16.	Formaline	ea	2
17.	Poison samples	ea	20
18.	Smelling equipment, (anesthesia)	ea	10

Equipment for the Chemical Laboratory in the Field

(for second squad)

Case #36

This chest is 28" x 18" x 22" and is incomplete.

1.	Solution of Sodium bicarbonate 2%		
2.	Alkaline solution 2%		
3.	Bleaching powder	kgs	8
4.	First aid box	ea	1
5.	Alcohol	gals	5
6.	Buckets, square type	ea	2
7.	Gasoline	gals	5
8.	Brushes for washing the skin	ea	5
9.	Sponges	ea	5
10.	Towels	ea	3
11.	Rubber gloves		
	a. white	prs	6
	b. thin	prs	6
12.	Wash stand	ea	1
13.	Container for yperite (mustard) cure	ea	1
14.	Wash basin	ea	1
15.	Soap case	ea	1
16.	Yperite (mustard) cure	kgs	3
17.	Rubber tube		
	a. outside diameter 25 mm	meters	10
	b. outside diameter 15 mm	meters	10
18.	Rolled bandages	pkgs	2
19.	Gauze	pkgs	10
20.	Absorbent cotton	pkgs	5
21.	Soaps	ea	2

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Co-operate #38

This chest is 28" x 20" x 23" and is supposed to contain the following items (incomplete):

1.	Equipment (tools) for repairing equipment	set	1
2.	Solder	pieces	2
3.	Container for the intestines	set	1
4.	Graduated test tubes	ea	16
5.	Plexor (perdussion hammer)	ea	1
6.	Dissecting appliances (for big animals)	set	1
7.	Chemical warfare bags		
	A.	sets	2
	B.	set	1
8.	Dissecting gowns	suits	2
9.	Veterinary surgical instruments	set	1
10.	Hemp cord	ea	2
11.	Flat braid	ea	2

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Box Coöperate #40

This chest is 28" x 20" x 18 1/2" and is supposed to contain the following items:

1.	Rice, polished		
2.	Barley		
3.	Rice, unpolished		
4.	Corn		
5.	Bucket, square	set	1
6.	Soy paste		
7.	Soy sauce		
8.	Depilatory		
9.	Salt		
10.	Bran		
11.	Wheat		
12.	Cage, feeding	set	1
13.	Iron pot	ea	1
14.	Pan	ea	1
15.	Neck cutter, pigeon	ea	1
16.	Shears, hair cutting	ea	3
17.	Brushes, nail washing	ea	10
18.	Kitchen-knife	ea	1
19.	Rod, catching	ea	1
20.	Rod, striking	ea	1
21.	Brushes, long handle	ea	2
22.	Broom	ea	1
23.	Ladles		
	a. Large	ea	2
	b. Small	ea	2
24.	Collars		
	a. Large	ea	5
	b. Small	ea	5
25.	Chain	ea	10
26.	Chaffing board	ea	1

Equipment for the Chemical Laboratory in the Field

(for the second squad)

Coöperate #41

This chest is 20" x 28" x 27" and contains one complete distillatory apparatus and a liquid fuel heater with two burners.

This chest and chest #42 (The chest for experimenting in poisoning) are identical.

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Box Co-operate #42

This chest is 28" x 20" x 18 1/2" and contains the following:

- | | | |
|-----------------|----|---|
| 1. Drier, large | ea | 1 |
|-----------------|----|---|

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Box Co-operate #43

This chest is 28" x 20" x 16" and is identical with Box Poisoning #43. It contains the following items:

- | | | |
|------------------------------------|----|---|
| 1. Centrifugal sinker (centrifuge) | ea | 1 |
| 2. Signal clock | ea | 1 |

Equipment for the Chemical Laboratory in the Field

(for the second squad)
Box Co-operate #44

This chest is 28" x 20" x 16" and is supposed to contain the following items:

1. Papers:
 - a. Filter papers
 - b. Paraffin paper
 - c. Note books
 - d. Ruled papers
 - e. Copy papers
 - f. Section papers
 - g. Lid papers
 - h. Carbon papers
 - i. Absorbing papers
 - j. Stencil papers
 - k. Writing paper common
 - l. Writing paper Japanese

m.	Letter papers		
n.	Envelopes		
o.	Labels		
2.	Ruler, curved line	ea	1
3.	Copying machine	set	1
4.	Fatigue clothes	suits	10
5.	Ruler, triangular	set	1
6.	Ink	ea	6
7.	Stamp ink	ea	4
8.	Chinese ink	ea	2
9.	Soap industrial	ea	3
10.	Drawing kit	set	1
11.	Blood saccharimeter	ea	1
12.	Gauge, blood solidification	ea	1
13.	Pocket lamp	ea	2
14.	Stamp ink pad	ea	2
15.	Candles	ea	25
16.	Paste	ea	2
17.	Eraser, rubber	ea	12
18.	Match	ea	20

